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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,981	06/27/2005	Abdallah Mechi	DK-US055154	9270
22919	7590	10/06/2006	EXAMINER	
GLOBAL IP COUNSELORS, LLP 1233 20TH STREET, NW, SUITE 700 WASHINGTON, DC 20036-2680			RO, BENTSU	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/540,981	Applicant(s) MECHI, ABDALLAH	
	Examiner Bentsu Ro	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/9/06</u> . | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

1. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyons et al US Patent No. 5,910,892. (This is a new reference.)

Claims read onto Lyons et al teaching as follows:

The claims:	Lyons et al teaching:
<p>5. (Currently Amended) A motor drive device</p> <p>for an air conditioner</p> <p>comprising:</p> <p>a converter which receives AC power;</p> <p>a three phase inverter which receives output voltage from the converter and outputs an AC voltage to a motor for the air conditioner; and</p> <p>and a control means which controls the converter so as to maximize efficiency,</p>	<p>Lyons et al teach a high power motor drive converter system, see title;</p> <p>Lyons et al do not state the use of the motor drive in an air conditioner, however, an air conditioner is merely an obvious intended use;</p> <p>Lyons motor drive obviously can be used to drive an air conditioner, in fact, any motor drives can be used to drive an air conditioner;</p> <p>Fig. 2 shows a power conversion stage 66, the stage 66 is a power converter for receiving AC power from a three-phase power grid 56;</p> <p>Fig. 2 shows an output converter stage 12, the stage 12 is a three phase inverter; the inverter 12 receives a DC output voltage at DC positive bus P1(+1) and DC negative bus M1 (-1) from the converter 66 and outputs an AC voltage to a motor 74;</p> <p>again, the air conditioner is an obvious intended use as explained previously;</p> <p>the control means is a program controller; Fig. 1 symbolically shows a controller 15 for controlling all phase legs, including the</p>

<p>the converter including two pairs of serially connected diodes,</p> <p>and a diode of each pair being reverse parallel to a switching device</p> <p>to form a switch circuit;</p> <p>each of the switch circuits being free from a connection in series with any other switch circuit,</p>	<p>phase legs in the power conversion stage 66 (Fig. 2) and output converter stage 12 (Fig. 2);</p> <p>it is noted that all control circuits are designed to operate and to achieve a maximum efficiency;</p> <p>Fig. 5 shows one of the phase legs; the one phase leg includes two pairs of serially connected diodes:</p> <p>the first pair of serially connected diodes includes a snubber diode 44 and the diode connected in parallel with the transistor 14a (or the diode D2 as shown in Fig. 3);</p> <p>the second pair of serially connected diodes is symmetrical to the first pair of serially connected diodes, including the diode D3 (as shown in Fig. 3) and the snubber diode (the bottom-right diode of Fig. 5, no reference numeral);</p> <p>the diode D2 is reversely and parallelly connected with the transistor 14a;</p> <p>the diode D3 is reversely and parallelly connected with transistor S3 (see Fig. 5 and Fig. 3);</p> <p>thus, the "a switching device" reads onto the transistor S2 and S3;</p> <p>the diode 44, transistor S2, diode D2, Diode D3, transistor S3 and the bottom-right snubber diode (no reference numeral, see Fig. 5) all together forming a switch circuit;</p> <p>Fig. 5 shows a single phase leg, each single phase leg does not connect in series with any other phase legs, see Fig. 2;</p>
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the switch circuits being connected in parallel to each other.	Fig. 2 shows the parallel connections of the three phase legs.
<p>7. (Currently Amended) The motor drive device as set forth in claim 5, further comprising</p> <p>a reactor connected in series to the converter on an input of the converter; and</p> <p>a capacitor connected in parallel to the converter on the input side of the converter.</p>	<p>Fig. 2 shows an input filter/transformer network 70;</p> <p>it is noted that a filter network should have at least one inductor connected in series to the converter and one capacitor connected in parallel to the converter.</p>

2. Claims 1-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei et al US Patent No. 6,995,992. (This is a new reference.)

Claims 1-5 and 7 are claiming applicant's Fig. 8 or Fig. 9 circuit. Wei's Fig. 2 circuit is basically similar to that of applicant's Fig. 8 or Fig. 9 circuit except the "air conditioner". The air conditioner is considered an obvious intended use as explained previously.

3. Applicant's arguments with respect to claims 1 and 5 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2837

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication should be directed to Bentsu Ro at telephone number 571 272-2072.

10/01/2006


Bentsu Ro
Senior Examiner
Art Unit 2837